# SITE HEALTH AND SAFETY PLAN

## EMERGENCY AND RAPID RESPONSE SERVICES

## Plastech Engineered Products Site – Andover, Ohio

**Prepared for**

**U.S. Environmental Protection Agency - Region 5**
**9311 Groh Road**
**Grosse Ile, MI 48138**

**Under Contract No.: EP-S5-09-05**
**Task Order: 133**
**Project No: P5-133**

**August 23, 2013**

**Environmental Restoration LLC**
**1666 Fabick Drive**
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# DRAFT
# SITE HEALTH AND SAFETY PLAN

## EMERGENCY AND RAPID RESPONSE SERVICES

## Plastech Engineered Products Site

I hereby certify that the enclosed Site Health and Safety Plan, shown and marked in this submittal, has been prepared in accordance with OSHA 29 CFR 1910 and is proposed to be incorporated with Contract No.: EP-S5-09-05 Task Order #133. This Site Health and Safety Plan is submitted for Government review and acceptance.

**Plan Preparer:**

| | | 586-246-2321 |
|---|---|---|
| Ed Kiernicki<br>Response Manager<br>Environmental Restoration LLC | Date | Phone Number |

**Plan Approval:**

| | | 708-333-9915 |
|---|---|---|
| Nick Michailides<br>Health & Safety Manager<br>Environmental Restoration LLC | Date | Phone Number |

**Plan Review:**

| | | |
|---|---|---|
| Ryan Green<br>START Site Lead | Date | Phone Number |

**Plan Review**

| | | |
|---|---|---|
| Dave Robinson<br>START Health and Safety | Date | Phone Number |

**Accepted as a submittal:**

| | | 734-692-7665 |
|---|---|---|
| Elizabeth Nightingale<br>On Scene Coordinator<br>USEPA Region 5 | Date | Phone Number |

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## GLOSSARY OF ACRONYMS

| | |
|---|---|
| **AHA** | Activity Hazard Analysis |
| **ANSI** | American National Standards Institute |
| **COC** | contaminant of concern |
| **CFR** | Code of Federal Regulations |
| **CIH** | Certified Industrial Hygienist |
| **CPR** | Cardiopulmonary Resuscitation |
| **CRZ** | Contamination Reduction Zone |
| **CSP** | Certified Safety Professional |
| **dBA** | decibel A-weighted |
| **DEET** | N, N-diethyl-m-toluamide |
| **EMR** | experience modification rate |
| **EMT** | emergency medical technician |
| **ERRS** | Emergency and Rapid Response Services |
| **USEPA** | United States Environmental Protection Agency |
| **EZ** | Exclusion Zone |
| **HASP** | Site Health and Safety Plan |
| **HAZWOPER** | Hazardous Waste Operation and Emergency Response |
| **HIPO** | high loss potential |
| **HMIS** | Hazardous Materials Identification System |
| **HTRW** | hazardous, toxic and radioactive waste |
| **IDLH** | immediately dangerous to life and health |
| **kV** | Kilovolt |
| **MCL** | Maximum Contaminant Level |
| **µg/kg** | micrograms per kilogram |
| **mg/kg** | milligrams per kilogram |
| **mg/m$^3$** | milligrams per cubic meter |
| **MSDS** | Material Safety Data Sheet |
| **NFPA** | National Fire Prevention Association |
| **NIOSH** | National Institute of Occupational, Safety and Health |
| **NPL** | National Priority List |
| **O&M** | Operations and Maintenance |
| **OSHA** | Occupational Safety and Health Administration |
| **PM** | Project Manager |
| **POL** | petroleum, oils, and lubricants |
| **PPE** | personal protective equipment |
| **ppm** | parts per million |
| **RIR** | recordable incident rate |
| **SCBA** | self-contained breathing apparatus |
| **SOP** | Standard Operating Procedure |
| **SOW** | Scope of Work |
| **START** | Superfund Technical Assistance and Response Team |
| **SHSO** | Site Health and Safety Officer |
| **Weston** | Weston Solutions, Inc. |
| **WNV** | West Nile Virus |

## 1.0 INTRODUCTION AND SITE ENTRY REQUIREMENTS

This document describes the health and safety guidelines developed for the Plastech Engineered Products Site, to protect on-site personnel, visitors, and the public from physical harm and exposure to hazardous materials or wastes. The procedures and guidelines contained herein were based upon the best available information at the time of the plan's preparation. Specific requirements will be revised when new information is received or conditions change. A written amendment will document all changes made to the plan. Any amendments to this plan will be included in Attachment A. Where appropriate, specific OSHA standards or other guidance will be cited and applied.

All work practices and procedures implemented on site must be designated to minimize worker contact with hazardous materials and to reduce the possibility of physical injury. All work will be performed in accordance with applicable Federal 29 CFR 1910 and 1926 health and safety regulations, including the Federal 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response regulation.

### 1.1 Daily Safety Meetings

Daily safety meetings will be held at the start of each shift to ensure that all personnel understand site conditions and operating procedures, to ensure that personal protective equipment is being used correctly and to address worker health and safety concerns.

### 1.2 Site Specific Training and Acknowledgement

The Response Manager shall be responsible for informing all individuals assigned to this project of the contents of this plan and ensuring that each person signs the Site Specific Training Record in Attachment Z. By signing the Site Specific Training Record, individuals acknowledge receipt of this training and that they recognize the potential hazards present on-site and the policies and procedures required to minimize exposure or adverse effects of these hazards.

### 1.3 Key Personnel

| **Project/Task Order: Site** | |
|---|---|
| **Key Personnel** | |
| **Names and Titles** | **Contact Information** |
| Elizabeth Nightingale – USEPA Region 5, OSC | (Mobile) 734-770-8402<br>(Office) 734-692-7665<br>Email: Nightingale.elizabeth@epa.gov |
| Ed Kiernicki – Response Manager | (Mobile) 586-246-2321<br>Email: e.kiernicki@erllc.com |
| Ed Kiernicki – SHSO | (Mobile) 586-246-2321<br>Email: e.kiernicki@erllc.com |
| Nick Michailides – Project HS Manager | 708-333-9915 (Office)<br>219-286-5359 (Mobile)<br>Email: n.michailides@erllc.com |
| Ryan Green – START Project Manager | 248-658-5015 (Office)<br>248-200-9825 (Mobile)<br>Email. A.Clark@WestonSolutions.com |
| Ryan Green – START Site Leader | 248-658-5000 (Office)<br>313-404-3225 (Mobile)<br>Email: SKane@dynamac.com |
| Dave Robinson – START HSO | 937-531-4400 (Office)<br>937-572-3630 (Mobile) |

| | |
|---|---|
| | Email: david.robinson@westonsolutions.com |
| | |
| | |
| | |
| **Subcontractors** | |
| **Company** | **Scope of Services** |
| TBD | TBD |

## 2.0 ROLES AND RESPONSIBILITIES

2.1 Response Manager (RM): Ed Kiernicki

The Response Manager, as the field representative for ER and its subcontractors, has the responsibility for implementing the Site Health and Safety Plan (HASP). The RM shall manage the project and ensure all health and safety requirements are met. The RM is the Site Health and Safety Officer for this project. Therefore, the RM is responsible for the duties listed in Section 2.2.

2.2 Site Health and Safety Officer (SHSO): Ed Kiernicki

The ER Site Health and Safety Officer is assigned to the site on a full-time basis with functional responsibility for assisting the RM with implementing the HASP.

Specific Duties Include:

a. Assist RM in providing a safe and healthful work environment.
b. Supervise confined space entries.
c. Assist RM in reporting and investigating all incidents.
d. Ensure proper decontamination of personnel and equipment is accomplished.
e. Ensure that air monitoring equipment is calibrated and operational.
f. Conduct personal air monitoring as required.
g. Perform respirator fit tests, as necessary.
h. Inventory and inspect personal protective equipment (PPE) prior to personnel entries into exclusion zone.
i. Prepare summary letter of personal air sampling results.
j. Ensure proper personal protective equipment is being utilized.
k. Assist RM in obtaining required personnel training and medical records.
l. Inspect first aid kits and fire extinguishers.

2.3 Other:

Any persons who observe a health and safety hazard should immediately report observations/concerns to appropriate key personnel listed in Section 2.1 or 2.2 above.

2.4 U.S. EPA On-Scene Coordinator (OSC): Elizabeth Nightingale

The OSC has overall project authority and directs the project manager regarding the tasks required to meet project objectives. The OSC has the authority to stop work and initiate corrective actions should there be a reason to do so.

2.5 START Project Manager (PM): Ryan Green

The project manager is responsible for managing all aspects of the project, WESTON project personnel, and subcontractors. The project manager interfaces directly with the U.S. EPA OSC regarding all project tasks.

2.6 START Site Leader (SL): Ryan Green

The site leader documents and tracks all work performed in the field. The site leader interfaces directly with the project manager regarding field tasks and any issues that arise while in the field. The site leader will also be responsible for conducting air monitoring in the work zones, including calibration of instruments as appropriate.

2.7 START Health and Safety Officer (HSO): Dave Robinson

The health and safety officer approves the Health and Safety Plan and provides guidance to field personnel on health and safety issues.

## 3.0 SITE BACKGROUND AND SCOPE OF WORK

### 3.1 Site Background

The site is located in a mixed residential and rural area at 205 Maple Street Extension in Andover, Ashtabula County, Ohio. The site coordinates are 41.61278 degrees North latitude and 80.56873 degrees West longitude. The site occupies about 20 acres and contains a former manufacturing building of approximately 274,000 square feet and a southern parking lot. Site access is unrestricted and signs of trespassing and vandalism were noted during site inspections conducted by the Ohio EPA from 2009 through 2012. The site is bounded by a wooded area to the north and east, a creek and residential properties to the south, industrial and residential properties to the west.

The site formerly manufactured automotive body parts by plastic injection molding and painting processes. Andover Industries BMPI (Andover Industries) operated the site until it filed for bankruptcy in October 2004. In 2005, Plastech purchased the site in a bankruptcy court auction and resumed manufacturing processes. In February 2008, manufacturing operations at the site ceased after Plastech filed for Chapter 11 bankruptcy. In 2009, Trusted Partners, LLC, purchased assets formerly owned by Plastech.

On February 11, 2009, the Ohio EPA inspected and documented containerized wastes at the site. Personnel who had reportedly purchased some material assets at the site were dismantling equipment for sale or scrap. On April 26, 2010, the Ohio EPA inspected the site and documented suspected regulated wastes in abandoned containers. On June 15, 2010, the Ohio EPA issued a Notice of Violation to the former owner of Plastech and the bankruptcy liquidating officer for failure to remove and dispose of all regulated wastes before operations ceased at the site. No response was received.

In June of 2012 Ohio EPA conducted a site investigation and discovered the presence of potentially hazardous materials. In August of 2012 Ohio EPA referred the site to the USEPA for further action. In late August of 2012 USEPA conducted a site assessment and collected samples from various containers. Results of this analysis documented the presence of hazardous substances.

### 3.2 Scope of Work (SOW)

ER has been tasked by the EPA to perform the following:

1) Develop and implement a Site-specific Health and Safety Plan.
2) Prepare a secure staging area for drums
3) Properly characterize the contents of the drums

4) Package wastes for off-site disposal (bulk, overpack, consolidate)
5) Transport and dispose of all hazardous materials at an EPA approved disposal facility, in accordance with U.S. EPA's Off-Site Rule

## 4.0 HAZARD ASSESSMENT

This section is to be addressed in the daily tool box safety meeting as each task is to be initiated. Each Activity Hazard Analysis (AHA) is designed to develop awareness to chemical and physical hazards specific to each task. It would be impractical to repeat in complete detail each control measure and Standard Operating Procedure (SOP) for each job task. Sources, hazards and control measures will be addressed for each job task.

Specific work tasks with unique hazards and/or PPE requirements must be evaluated or reevaluated prior to beginning work. This task review will be led by the Project Health and Safety Manager and the SHSO, and will include knowledgeable individuals such as the worker(s) and the supervisor. PPE requirements, based on this assessment, will be included in Section 6 of the HASP or in the AHA for the specific task. All workers must be trained in the requirements of the HASP and the applicable AHAs prior to beginning work. The required PPE may be changed by the SHSO, based on the results of additional air monitoring, or on task-specific needs. Downgrades will require the approval of the Project Health and Safety Manager unless otherwise permissible by the HASP.

The following section outlines the AHAs, Referenced Standard Operations Procedures (SOPs) and Chemical Hazards associated with this project. Applicable SOPs are available from ER's Health and Safety Database. AHAs will be developed for each of the SOW activities listed in Section 3.2 and submitted prior to the start of field work.

The AHAs should be revised for site-specific activities and reviewed with the work crew before commencing any activity.

The following table lists ER health and safety SOPs that are applicable to this project.

| ***Referenced SOPs:*** | |
|---|---|
| ER SOPs applicable to this project or task order: | START SOPs |
| HS-01 Air Monitoring and Sampling<br>HS-02 Blood Borne Pathogens Exposure Control Plan<br>HS-04 Flammable Liquids Transfer (Bonding and Grounding)<br>HS-08 Decontamination Measures<br>HS-10 Motor Vehicle Operations<br>HS-11 Drum Handling<br>HS-12 Electrical Safety - General<br>HS-15 Hazard Communication<br>HS-16 Hearing Conservation<br>HS-17 Heat Stress Safety<br>HS-18 Heavy Equipment Operation<br>HS-24 Personal Protective Equipment<br>HS-26 Respiratory Protection Program<br>HS-35 Hazard Categorization and Inventory<br>HS-36 Proper Lifting Techniques<br>HS-38 Fire Prevention Protection<br>HS-49 Tool Safety and Inspection<br>HS-50 First Aid HS-51 Incident Reporting and Investigation<br>HS-52 General Waste Management<br>HS-53 Spill Prevention Response | FLD02 Inclement Weather<br>FLD04 - Hot Process - LT3<br>FLD05 Heat Stress Prevention and Monitoring<br>FLD10 Manual Lifting and Handling of Heavy Objects<br>FLD11 - Rough Terrain<br>FLD12 Housekeeping<br>FLD14 Site Security<br>FLD20 Traffic<br>FLD22 Earth Moving Equipment/Material Handling Equipment<br>FLD31 Fire Prevention<br>FLD35 Electrical Safety<br>FLD41 Hand and Emergency Signals/Radio Communication<br>FLD43A - Animals<br>FLD43B - Stinging and Biting Insects<br>FLD43D - Hazardous Plants<br>FLD44 - Biological Hazards – Bloodborne Pathogens Exposure Control Plan – First Aid Providers<br>FLD57 Motor Vehicle Safety<br>FLD59 Decontamination |

| ***Referenced SOPs:*** | |
|---|---|
| ER SOPs applicable to this project or task order: | START SOPs |
| | |
| **UXO** known or suspected to present?<br>Yes ❑ No ☑ | UXO support and plans provided<br>Yes ❑ No ☑ |
| **Lifts** Yes ☑ No ❑ All terrain fork lift | |
| Items to be lifted: Drums | Critical ❑ Ordinary ❑ |
| **Excavations** Yes ❑ No ☑ | |

4.1 Chemical Hazards

| **Site Contaminants/Chemicals of Concern** | | | | | |
|---|---|---|---|---|---|
| **Chemical** | **Media** | **PEL** | **TLV** | **Route of Entry** | **Symptoms Acute/Chronic** |
| 1,3 dichloro-5,5 dimethylhydantoin | Solid | 0.2 mg/m3 | 0.2 mg/m$^3$ | Inhalation, Ingestion, Contact | Irrit eyes, muc mem, resp sys |
| Acid (pH <2) | Liquid | 5 ppm (C))(Hydrochloric Acid) | 2 ppm (C) (Hydrochloric Acid) | Inhalation Ingestion Contact | Irritation skin, eyes, nose, throat, respiratory system |
| Alkaline ( PH > 12.5) | Liquid or solid | 2 mg/m$^3$ (C) (Sodium Hydroxide) | 2 mg/m$^3$ (C) (Sodium Hydroxide) | Inhalation Ingestion Contact | Irritation skin, eyes, nose, throat, respiratory system |
| Flammable Liquids | Liquid | 400 ppm (Isopropanol) | 200 ppm (Isopropanol) | Inhalation Ingestion Contact | irritation eyes, nose, throat; drowsiness, dizziness, headache; dry cracking skin |
| Tetrachloroethylene | Liquid or solid | 100 ppm | | Inhalation Absorption Ingestion Contact | Irrit eyes, skin, nose, throat, resp sys; nau; flush face, neck, dizz; head, drow; liver damage |
| Trichloroethylene | Liquid or solid | 100 ppm | | Inhalation Absorption Ingestion Contact | Irrit eyes, skin; head, vis dist, lass, dizz, tremor, drow, nau, vomit; derm; card arrhy, liver in |

The above listing should not be taken as a complete assessment of the hazards posed by materials at the Plastech Engineered Products Site. The known and unknown mixed chemical hazards at this site prevent a clear determination of the specific effects of discrete compounds. Therefore, personnel must be alert for symptoms of possible exposure such as unusual smells, stinging, burning eyes, nose and throat, skin irritation, as well as feeling extremely well, depressed, sleepy or tired. Symptoms must be immediately reported to the site supervisor.

4.2 Task Specific Hazards and Controls

This section is to be addressed in the daily tool box safety meeting as each task is to be attempted. Each Activity Hazard Analysis is designed to develop awareness to chemical and physical hazards specific to each task. It would be impractical to repeat in complete detail each control measure and SOP for each job task. Sources, Hazards and Control Measures will be addressed for each job task.

| **Activity Hazard Analysis** | |
|---|---|
| **Job Task:** | Mobilization and Site Setup |

| **Personal Protective Equipment:** Level D | | |
|---|---|---|
| **Hazard** | **Sources** | **Control Measures** |
| Corrosive/toxic liquids/sludges/solids | Open drums, containers, dirt | - Do not move or handle open containers |
| Traffic related injury | Driving motor vehicles | - Follow HS-10 Motor Vehicle Operation<br>- Adjust controls/mirrors prior to operation<br>- Utilized defensive driving techniques. |
| Struck by/caught between | Vehicle & Equipment Operation | - Follow HS-18 Heavy Equipment Operation<br>- FLD57 Motor Vehicle Safety<br>- FLD22 Earth Moving Equipment<br>- Ensure outriggers are properly positioned for wheeled excavator/equipment<br>- Only qualified drivers permitted to operate vehicles<br>- Wear ANSI Type 2 or Type 3 high-visibility safety vest<br>- Wear seat belts while in operation<br>- Back up alarms functional and loud enough to hear over surroundings<br>- Ground personnel are not allowed within swing radius of equipment while in operation<br>- Personnel must establish eye contact with operator and operator must disengage and remove hands from controls prior to entering the swing radius |
| Ergonomics | Lifting and bending | - Follow HS-36 Proper lifting techniques<br>- FLD10 - Manual Lifting/Handling<br>- Use Buddy system<br>- No individual lifting over 40 lbs.<br>- Use mechanical means when feasible |
| Heat Stress | Work in protective garments | - Cool break areas<br>- Follow ER SOP HS-17<br>- FLD05 - Heat Stress Prevention/Monitoring<br>- Plenty of Fluids & breaks |
| Noise | Heavy equipment/Hand tools | - Hearing protection required at all times when working with tools generating sound above 85db<br>- Hearing protection required when operation open-cab equipment<br>- If you have to shout to be heard, use hearing protection<br>- Sec. 7.0 – Weston ECH&S Program Manual Occupational Noise & HC Program |
| Fire | Electrical devices/service | - Fire extinguishers with at least a 3A:40B:C rating shall be placed in when working<br>- FLD31 - Fire Prevention/Response Plan |
| Electrocution | Power tools/equipment | - Inspect all power cords prior to use<br>- Use GFCI on all connections<br>- De-energize all circuits in building except for overhead lights and limited 110v receptacles.<br>- Protect/elevate temporary power cords<br>- FLD35 Electrical Safety<br>- FLD38 - Hand and Power Tools |
| Cuts/Punctures | Sharp Objects – Sheet Metal/ Nails/screws | - Beware of sharp objects<br>- Wear cut resistant gloves<br>- Use safety utility knife<br>- Always cut away from body |
| Slip/Trip/Fall | Poor condition of building<br>Insufficient lighting<br>Uneven terrain/debris | - Keep area organized<br>- Identify/mark hazards<br>- Remove debris from walking/ working surfaces<br>- FLD11 - Rough Terrain |

| **Activity Hazard Analysis** | | |
|---|---|---|
| **Job Task:** Chemical Container Handling/Sampling/Bulking | | |
| **Personal Protective Equipment:** Level B (Sampling)/Level C (Handling/Bulking) | | |
| **Hazard** | **Sources** | **Control Measures** |

| Activity Hazard Analysis | | |
|---|---|---|
| **Job Task:** Chemical Container Handling/Sampling/Bulking | | |
| **Personal Protective Equipment:** Level B (Sampling)/Level C (Handling/Bulking) | | |
| **Hazard** | **Sources** | **Control Measures** |
| Chemical Exposure | Chemicals in drums, totes, buckets, and small containers<br><br>Chemicals in vats, tanks | - Avoid contact<br>- Prior to retrieval secure containers to prevent leakage or splash hazard<br>- Use appropriate sampling techniques with drum thieves<br>- Use proper field categorization techniques<br>- Use proper bulking techniques based on sound field categorization results<br>- Bulk only like materials based on field categorization<br>- Splash prevention measures/ face shields- visqueen shield around drums<br>- If possible have thermometer near for temperature changes<br>- After drum is full leave container open for a period of time<br>- Implement proper handling in accordance with HS-11 Drum Handling<br>- Control work area to authorized personnel only<br>- Utilize proper PPE per section 6.0 of this HASP<br>- Perform air monitoring per section 8.0 of this HASP<br>- Implement proper decontamination procedures per section 10.0<br>- Construct proper containment around storage area |
| Fire | Site chemical (Oxidizers, flammable liquids/solids)<br>Electrical devices/service | - Minimize handling of containers<br>- Properly segregate chemicals to prevent reaction<br>- Store out of direct sunlight<br>- Perform air monitoring per section 6.0 of this HASP<br>- Fire extinguishers with at least a 3A:40B:C rating in when working<br>- FLD31 - Fire Prevention/Response Plan |
| Ergonomics | Lifting and bending | - Buddy system/Proper lifting techniques<br>- No individual lifting over 40 lbs<br>- FLD10 - Manual Lifting/Handling. |
| Struck by/caught between | Vehicle & Equipment Operation/Traffic | - Follow HS-10 Motor Vehicle Operation<br>- Follow HS-18 Heavy Equipment Operation<br>- FLD57 Motor Vehicle Safety<br>- FLD22 Earth Moving Equipment<br>- Ensure outriggers are properly positioned for wheeled excavator/equipment<br>- Only qualified drivers permitted to operate vehicles<br>- Wear ANSI Type 2 or type 3 high-visibility safety vest<br>- Wear seat belts while in operation<br>- Back up alarms functional and loud enough to hear over surroundings<br>- Ground personnel are not allowed within swing radius of equipment while in operation<br>- Personnel must establish eye contact with operator and operator must disengage and remove hands from controls prior to entering the swing radius |
| Heat/Cold Stress | Seasonal Temperatures/<br>Work in protective garments | - Cool/Warm break areas<br>- Follow ER SOP HS-17<br>- Follow ER SOP HS-5<br>- FLD05 Heat Stress Prevention and Monitoring<br>- Plenty of Fluids & breaks |
| Noise | Heavy Equipment, Diaphragm Pumps, Air compressor, Hand Tools | - Hearing protection required at all times when working near pumps, air compressors, hand tools and heavy equipment above 85db<br>- Section 7.0 - ECH&S Program Manual Occupational Noise & HC Program |
| Electrocution | Power tools/equipment | - Inspect all power cords prior to use<br>- Use GFCI on all connections<br>- FLD38 - Hand and Power Tools<br>- FLD35 Electrical Safety |
| Cuts/Punctures | Sharp Objects – Sheet Metal/ Nails/screws | - Beware of sharp objects<br>- Wear cut resistant gloves<br>- Use safety utility knife<br>- Always cut away from body |
| Slip/Trip/Fall | Structure/roof trusses<br>Uneven terrain/debris | - Keep area organized<br>- Identify/mark hazards<br>- Remove debris from walking/ working surfaces<br>- FLD11 - Rough Terrain |

| Activity Hazard Analysis | | |
|---|---|---|
| **Job Task:** Decontamination Operations | | |
| **Personal Protective Equipment:** Level C | | |
| **Hazard** | **Sources** | **Control Measures** |
| Chemical Exposure | Chemicals in drums, totes, buckets, and small containers<br><br>Chemicals in vats, tanks | - Avoid contact<br>- Prior to retrieval secure containers to prevent leakage or splash hazard<br>- Use appropriate sampling techniques with drum thieves<br>- Use proper field categorization techniques<br>- Use proper bulking techniques based on sound field categorization results<br>- Bulk only like materials based on field categorization<br>- Splash prevention measures/ face shields- visqueen shield around drums<br>- If possible have thermometer near for temperature changes<br>- After drum is full leave container open for a period of time<br>- Implement proper handling in accordance with HS-11 Drum Handling<br>- Control work area to authorized personnel only<br>- Utilize proper PPE per section 6.0 of this HASP<br>- Perform air monitoring per section 8.0 of this HASP<br>- Implement proper decontamination procedures per section 10.0<br>- Construct proper containment around storage area |
| Burns/lacerations | Hot water pressure washer | - Operate pressure washer per manufactures instructions<br>- Pressure washer must be equipped with safety shut-off<br>- Inspect hose prior to each use<br>- Do not point wand at other individuals<br>- Wand must be at least 48" in length<br>- Wear splash shield and safety glasses when not wearing respirator<br>- Never use for personnel decontamination<br>- FLD04 - Hot Process - LT3 |
| Confined Space | Tanks/Sumps/Vaults | - Avoid entry if possible<br>- Follow HS-06 Confined Space Entry |
| Fire | Site chemical (Oxidizers, flammable liquids/solids)<br>Electrical devices/service | - Minimize handling of containers<br>- Properly segregate chemicals to prevent reaction<br>- Store out of direct sunlight<br>- Perform air monitoring per section 6.0 of this HASP<br>- Fire extinguishers with at least a 3A:40B:C rating in when working<br>- FLD31 - Fire Prevention/Response Plan |
| Ergonomics | Lifting and bending | - Buddy system/Proper lifting techniques<br>- No individual lifting over 40 lbs<br>- FLD10 - Manual Lifting/Handling. |
| Struck by/caught between | Vehicle & Equipment Operation/Traffic | - Follow HS-10 Motor Vehicle Operation<br>- Follow HS-18 Heavy Equipment Operation<br>- FLD57 Motor Vehicle Safety<br>- FLD22 Earth Moving Equipment<br>- Ensure outriggers are properly positioned for wheeled excavator/equipment<br>- Only qualified drivers permitted to operate vehicles<br>- Wear ANSI Type 2 or Type 3 high-visibility safety vest<br>- Wear seat belts while in operation<br>- Back up alarms functional and loud enough to hear over surroundings<br>- Ground personnel are not allowed within swing radius of equipment while in operation<br>- Personnel must establish eye contact with operator and operator must disengage and remove hands from controls prior to entering the swing radius |
| Heat/Cold Stress | Seasonal Temperatures/<br>Work in protective garments | - Cool/Warm break areas<br>- Follow ER SOP HS-17<br>- Follow ER SOP HS-5<br>- FLD05 Heat Stress Prevention and Monitoring<br>- Plenty of Fluids & breaks |
| Noise | Heavy Equipment, Diaphragm Pumps, Air compressor, Hand Tools | - Hearing protection required at all times when working near pumps, air compressors, hand tools and heavy equipment above 85db<br>- Section 7.0 - ECH&S Program Manual Occupational Noise & HC Program |
| Electrocution | Power tools/equipment | - Inspect all power cords prior to use<br>- Use GFCI on all connections<br>- FLD38 - Hand and Power Tools |

| Activity Hazard Analysis | | |
|---|---|---|
| **Job Task:** Decontamination Operations | | |
| **Personal Protective Equipment:** Level C | | |
| **Hazard** | **Sources** | **Control Measures** |
| | | - FLD35 Electrical Safety |
| Cuts/Punctures | Sharp Objects – Sheet Metal/ Nails/screws | - Beware of sharp objects<br>- Wear cut resistant gloves<br>- Use safety utility knife<br>- Always cut away from body |
| Slip/Trip/Fall | Structure/roof trusses<br>Uneven terrain/debris | - Keep area organized<br>- Identify/mark hazards<br>- Remove debris from walking/ working surfaces<br>- FLD11 - Rough Terrain |

| TASK SPECIFIC SAFETY ASSESSMENT | | | |
|---|---|---|---|
| **JOB TASK:** CONDUCT WORK ZONE AIR MONITORING | | | |
| **PERSONAL PROTECTIVE EQUIPMENT:** Consistent with ERRS Task | | | |
| **HAZARD** | **SOURCES** | **CONTROL MEASURES** | |
| Corrosive/toxic liquids/sludges | Dust, loose solids, liquids | Poly –coated Tyvek or equiv., nitrile gloves, supplied air respirator, use wetting dust suppression agents as necessary. Level B not anticipated. | |
| Noise | Equipment | Hearing protection at levels > 85 dBs.<br>Section 7.0 - ECH&S Program Manual Occupational Noise & HC Program | |
| Struck by / Pinch Points | Bobcat, Forklift, Vehicles | Stay away from operating equipment, avoid walking between equipment and stationary objects, use hand signals | |
| Slips / Trips / Falls | Uneven terrain / Debris | Keep work area organized<br>FLD11 - Rough Terrain | |
| Heat Stress | Summer Temperatures<br>PPE Usage | Follow HS-17 / FLD05 Heat Stress SOP | |

## 4.3 Physical Hazards

| Physical/Environmental Hazard Analysis | | |
|---|---|---|
| **Hazard** | **Pre Planning to Control Hazard** | **Active Control Measures** |
| Electrical | 1. Locate and mark existing energized lines.<br>2. De-energize lines if necessary to perform work safely.<br>3. All electrical circuits will be grounded.<br>4. All 120 volt single phase which are not a part of the permanent wiring will have a ground-fault interrupter in place.<br>5. Temporary wiring will be guarded, buried or isolated by elevation to prevent accidental contact by personnel or equipment.<br>6. Evaluate potential for high moisture/standing water areas and define special electrical wiring needs-typically requirement for low voltage lighting systems. | 1. Utilize Qualified Electrical Contractor for any new or temporary electrical construction.<br>2. Ensure electrical equipment/material meet all local, state and federal code and specifications<br>3. Use GFCI for all power tool usage.<br>4. All electrical cords must be inspected for damage prior to each use<br>5. FLD38 - Hand and Power Tools<br>6. FLD35 Electrical Safety |
| Ergonomic | 1. All operations evaluated for ergonomic impact.<br>2. Procedures written to define limits of lifting, pulling, etc.<br>3. Procedures to define how personnel will utilize proper ergonomic concepts and utilize mechanical material handling equipment.<br>4. Necessary mechanical material handling equipment specified and ordered for project. | 1. Proper body mechanics techniques stressed and enforced on a daily basis.<br>2. Mechanical handling equipment maintained and utilized.<br>3. Proper body mechanics stressed in scheduled safety meetings.<br>4. Injuries reported and medically treated if in doubt about severity.<br>5. Operations changed as necessary based on |

| Physical/Environmental Hazard Analysis | | |
|---|---|---|
| **Hazard** | **Pre Planning to Control Hazard** | **Active Control Measures** |
| | | injury experience or potential.<br>6. FLD10 - Manual Lifting/Handling Heavy Objects |
| Existing Site Topography | 1. Survey site prior to layout. Identify areas unsafe for personnel or equipment due to physical conditions.<br>2. Identify/locate existing utilities.<br>3. Determine impact of site operations on surrounding properties, communities, etc.<br>4. Identify mechanized equipment routes both on site and onto and off the site.<br>5. Layout site into exclusion and contamination reduction zones based on initial site evaluation. | 1. Awareness to work environment - regular inspection/audits to identify changing conditions.<br>2. Shut down operations when unknown conditions encountered.<br>3. FLD11 - Rough Terrain |
| Fires & Explosions | 1. Evaluate all operations for fire and explosion potential.<br>2. Define specific procedures for unique operations presenting unusual hazard such as flammable tank demolition.<br>3. Ensure that properly trained personnel and specialized equipment is available.<br>4. Define requirements for handling and storage of flammable liquids on site, need for hot work permits and procedures to follow in the event of fire or explosion.<br>5. Define the type and quantity of fire suppression equipment needed on site.<br>6. Coordinate which local fire fighting agencies to discuss unique fire hazards, hazardous materials, etc.<br>7. Ensure site operations comply with 29CFR 1910.157(g). | 1. Inspect fire suppression equipment on a regular basis.<br>2. Store flammables away from oxidizers and corrosives.<br>3. Utilize Hot Work Permit for all hot work on-site.<br>4. Follow any site specific procedures regarding work around flammables.<br>5. Review and practice contingency plans.<br>6. Discuss on regular basis at scheduled safety meetings.<br>7. FLD31 - Fire Prevention/Response Plan |
| Flammable Vapor and Gases | 1. Evaluate site to determine sources of likely flammable gas or vapor generation.<br>2. Develop specific procedures to be followed in the event of exposure to flammables.<br>3. Specify specialized equipment needs for inerting flammable atmospheres, ventilating spaces and monitoring flammable vapor concentrations.<br>4. Define requirements for intrinsically safe equipment.<br>5. Develop contingency plan to follow in the event of fire or explosion. | 1. Calibrated monitoring equipment available and utilized by trained personnel whenever working where flammable gas or vapor is present.<br>2. Monitoring performed at regular frequency and in all areas where vapor could generate or pool.<br>3. Equipment and operations shut down when threshold levels are exceeded.<br>4. Contingency plans reviewed regularly by all involved personnel.<br>5. Work areas are carefully inspected to look for possible ignition sources. Sources are removed.<br>6. Operations shut down if specific task procedures can't be followed to the letter.<br>7. FLD-31 & FLD-32 Fire Prevention & Fire Extinguishers, respectively |
| Heavy Equipment Operation | 1. Define equipment routes and traffic patterns for site.<br>2. Insure that operators are properly trained on equipment operation for all equipment required on project.<br>3. Define safety equipment requirements, including back up alarm and roll over, for all equipment on site.<br>4. Define equipment routes and traffic patterns for site.<br>5. Implement SOP of requiring operators to safety inspect equipment on a daily basis in accordance with manufacturer requirements.<br>6. Evaluate project requirements to ensure that equipment of adequate capacity is specified. | 1. Equipment inspected as required.<br>2. Equipment repaired or taken out of service.<br>3. Ground spotters are assigned to work with equipment operators.<br>4. Utilize standard hand signals and communication protocols.<br>5. Personnel wear the proper PPE; utilize hearing protection, gloves for handling rigging, etc.<br>6. Equipment safety procedures discussed at daily scheduled safety meetings.<br>7. Personnel do not exceed lifting capacities, load limits, etc. for equipment in question.<br>8. Personnel follow basic SOP's which prohibit passengers on equipment, activating brakes and grounding buckets, securing loads prior to movement, etc.<br>9. FLD-22, Heavy Equipment Operations |
| Illumination | 1. Evaluate all operations and work areas to determine lighting | 1. Inspect specialized equipment and discard or |

| Physical/Environmental Hazard Analysis | | |
|---|---|---|
| **Hazard** | **Pre Planning to Control Hazard** | **Active Control Measures** |
| | requirements.<br>2. Specify specialized lighting requirements including explosion proof, intrinsically safe, lighting needs.<br>3. Determine if nighttime outdoor operations are necessary.<br>4. Evaluate tasks to be performed and number of light plants necessary to allow operations.<br>5. Ascertain if outdoor lighting from nighttime operations will have an impact on surrounding communities. | replace as needed.<br>2. Add additional lighting to areas with lighting deficiencies.<br>3. Inspect drop cords and portable lights on regular basis. Replace or repair as necessary.<br>4. FLD-39 Illumination |
| Noise | 1. Local community noise standards examined.<br>2. Expected loud operations evaluated to determine compliance with community standards.<br>3. Loud operations scheduled for approved time periods.<br>4. Noise level standards established for equipment brought onto site.<br>5. Hearing protection requirements defined for personnel expected to have excessive exposures. | 1. Personnel receive annual audiogram.<br>2. Personnel required to wear hearing protection.<br>3. Routine noise level monitoring and dosimetry performed.<br>4. Defective equipment repaired as needed.<br>5. Ongoing hearing conservation education promoted at scheduled safety meetings.<br>6. Medical evaluation following noise (impact) exposure if symptoms present themselves.<br>7. Sec. 7.0 – Weston ECH&S Program Manual Occupational Noise & HC Program |
| Personal Injuries | 1. Site operations will be evaluated for exposures with serious injury potential such as falling objects, pinch points, flying objects, falls from elevated surfaces, etc.<br>2. A written Fall Prevention Program will be developed if workers will be required to work at heights greater than 6 feet from unguarded work locations.<br>3. PPE requirements will be based on potential for injury. | 1. Personnel will wear required PPE.<br>2. Specialized equipment such as rope grabs, winches, etc. will be inspected prior to each use.<br>3. Defective equipment will be immediately replaced.<br>4. All injury and near miss incidents will be reported to the SHSO.<br>5. First aid/CPR trained person on site at all times.<br>6. First aid on site.<br>7. Transport for medical care if necessary.<br>8. FLD-44 Bloodborne Pathogens Exposure Control Plan for First Aid Providers |
| Small Equipment Usage | 1. Site operations will be evaluated to determine need for specialized intrinsically safe, explosion-proof and UL approved equipment and instruments.<br>2. Implement requirement for G.F.I., double insulated tool usage, or assured grounding program in all outdoor operations, will be utilized.<br>3. Specify equipment needs to ensure that equipment used only for the purpose for which it is designed and to prevent abuse or misuse of the equipment.<br>4. Specify requirements for the inspections and maintenance of specialized equipment.<br>5. Specify that all equipment utilized on the project meets all OSHA requirements. | 1. Inspect each tool prior to each use.<br>2. Ensure all guards are in use and properly positioned.<br>3. Ensure item being worked on is properly braced if necessary.<br>4. Get help when appropriate to hold or brace item being worked on.<br>5. Wear leather or other appropriate gloves in addition to level C PPE.<br>6. FLD-38 Hand & Power Tool Usage |
| Weather Conditions | 1. Evaluate prevailing weather conditions for the site.<br>2. Contingency plans developed for likely severe weather conditions such as lightning, tornado, and severe thunderstorm.<br>3. Provide for daily weather forecast service in extreme weather areas.<br>4. Plan to weatherize safety systems, such as showers and eye washes that would be impacted by extreme cold weather.<br>5. Order necessary specialized cold weather clothing.<br>6. Grounding and bonding requirements defined for thunderstorm areas.<br>7. Sheltered air conditioned break areas provided for extreme hot and cold weather zones. | 1. Employees trained in contingency plan for severe weather conditions.<br>2. Emergency water sources inspected regularly in cold areas.<br>3. Weather service contacted regularly during storm conditions.<br>4. Supervisory personnel cease operations during extreme storm conditions (i.e., lightning or thunderstorms).<br>5. Personnel evacuate to safe assembly area.<br>6. FLD-02 Inclement Weather |
| Heat Stress | 1. Anticipate possible high temperatures (summer months).<br>2. Be aware of heat stress symptoms, quit sweating, pale, clammy skin, dizziness | 1. Cool break area.<br>2. Drink water.<br>3. Buddy system/ awareness<br>4. First aid on site.<br>5. Medical care if symptoms persist. |

| Physical/Environmental Hazard Analysis | | |
|---|---|---|
| **Hazard** | **Pre Planning to Control Hazard** | **Active Control Measures** |
| | | 6. FLD05 - Heat Stress Prevention/Monitoring |
| Cold Stress | 1. Anticipate possible low temperatures (winter months).<br>2. Remember the temperature does not have to be below freezing to have a cold stress situation. | 1. Warm break area.<br>2. Warm decaffeinated drinks.<br>3. Buddy system/ awareness.<br>4. First aid on site.<br>5. Medical care if symptoms persist<br>6. FLD-06 Cold Stress |

## 5.0 Training Requirements

This section describes ER's project training requirements and site visitor policy. Training of all personnel shall be in accordance with OSHA 29 CFR 1910.120 and the National Fire Protection Association (NFPA) standards.

### 5.1 Project Training Requirements

The training listed in Table 5-1 will be provided to project participants as noted. All required training will be documented and this documentation maintained onsite.

| **Project Training Requirements:** | | |
|---|---|---|
| **Topic** | **Description** | **Personnel** |
| ***General Training*** | | |
| Site Safety and Health Plan | Site-specific hazards and control requirements, before commencement of field work. Includes training in proper use and care of PPE. | All project personnel |
| Activity Hazard Analysis | Activity-specific hazards, controls and training requirements for a specific phase or activity, prior to commencement of activity | Workers, supervisors and oversight personnel engaged in the activity |
| Daily Safety Briefing | In addition to plan-of-the-day and daily hazard reminders, often used to cover a specific topic; provided refresher training on various issues; or changes in hazards, controls or procedures. | All field workers, supervisors and field oversight personnel |
| Emergency Action Plan | Roles, responsibilities, recognition of emergency conditions, reporting and notification, evacuation and other procedures. | All project personnel, with detailed information on procedures for workers with special responsibilities |
| OSHA 40-Hour Hazardous Waste Operation (HAZWOPER) Training | General hazards and controls for hazardous waste activities at remediation sites, prior to performing work in an exclusion zone. | General site workers, supervisors, oversight personnel on HAZWOPER sites |
| OSHA 8-Hour Supervisor | Managing HAZWOPER work activities | Supervisors and management support staff on HAZWOPER sites |
| OSHA 8-Hour Refresher | Current annual refresher for HAZWOPER sites. | Workers, supervisors and oversight personnel engaged in the activity |
| Hazard Communication | Requirements for MSDS, labels; hazards of site materials and controls; location of and access to inventories and MSDS. | All project personnel potentially exposed to hazardous materials |
| Fire Extinguisher | General education on selection, distribution, and proper use of fire extinguishers. | All project personnel |
| ***Special Training*** | | |
| First aid/ Cardiopulmonary Resuscitation (CPR) | Red Cross, National Safety Council or other authorized course, with current refresher | At least 2 project personnel |
| Fall Protection | Fall (from elevation) hazards, fall protection techniques, especially proper use of personal fall arrest systems and rescue procedures. | Task-specific, workers exposed to fall hazards. |
| Lockout/Tagout | Site-specific energy control and verification procedures. | Authorized personnel working on de-energized systems, and affected employees whose work may be impacted by a lockout/tagout situation. |
| Other Heavy Equipment | Qualified by Construction Manager, Superintendent or | Equipment Operators |

| Project Training Requirements: | | |
|---|---|---|
| **Topic** | **Description** | **Personnel** |
| operations | Equipment Supervisor as documented on ER Equipment Operator Qualifications Form | |
| Power tools (e.g. chain saws, chippers, powder-actuated tools, compressed air systems) | Hazards and proper use and maintenance as described in operations manual. Power-operated tool users certified by manufacturer. | Tool users |

5.2 Visitor Indoctrination Policy

All site visitors will be required to review the daily tailgate safety issues and sign the visitor log. At a minimum, all visitors must be informed of the anticipated hazards and PPE requirements, designated work zones, escort procedures, and emergency procedures.

## 6.0 PERSONAL PROTECTIVE EQUIPMENT

The following is a brief description of the personal protective equipment, which may be required during various phases of the project. The U.S. EPA terminology for protective equipment will be used; Levels A, B, C and D.

Respiratory protective equipment shall be NIOSH-approved and use shall conform to OSHA 29 CFR Part 1910.134 Requirements. Each employer shall maintain a written respirator program detailing selection, use, cleaning, maintenance and storage of respiratory protective equipment. The written Respirator Program will be maintained at the local and regional offices.

6.1 Level A Protection Shall Be Used When: (NOT ANTICIPATED)

- The extremely hazardous substance requires the highest level of protection for skin, eyes and the respiratory system;
- Substances with a high degree of hazard to the skin are known or suspected;
- Chemical concentrations are known to be above Immediately Dangerous to Life and Health (IDLH) levels; or,
- Biological hazards requiring Level A are known or suspected.

6.2 Level B Protection Shall Be Used When:

- The substance(s) has been identified and requires a high level of respiratory protection but less skin protection;
- Concentrations of chemicals in the air are IDLH or above the maximum use limit of an APR with full-face mask;
- Oxygen deficient or potentially oxygen deficient atmospheres (<19.5%) are possible; and/or, Confined space entry may require Level B.
- Incomplete identification of gases and vapors, but not suspected to be harmful to skin or skin absorbable

Level B Protective Equipment at a Minimum Shall Consist of:

| | |
|---|---|
| SCBA / Cascade System | Full Face |
| Chemical Resistant/Protective Coveralls (type) | Poly coated Tyvek / Acid Suits* |
| Inner Gloves (type) | Nitrile |
| Outer Chemical Gloves (type) | Nitrile |
| Outer Work Gloves (type) | Leather** |

| | |
|---|---|
| Safety Shoes/Boots (type) | Chemical resistant steel toed |
| Hard Hat | ANSI approved |
| Modifications: | * Acid suits will be used during liquid transfer activities.<br>** Cut resistant gloves will be used when handling metal and other sharp objects. |

6.3 Level C Protection Shall Be Used When:

- The same level of skin protection as Level B, but a lower level of respiratory protection is required;
- The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove contaminants; or,
- The substance has adequate warning properties and all criteria for the use of APR respirators has been met

Level C Protective Equipment at a Minimum Shall Consist of:

| | |
|---|---|
| Air Purifying Respirator | Full face |
| Cartridges | AG / OV/P100 |
| Chemical Resistant/Protective Coveralls | Poly coated Tyvek / Acid suits* |
| Inner Gloves | Nitrile |
| Outer Chemical Gloves | Nitrile |
| Outer Work Gloves | Leather** |
| Safety Shoes/Boots | Chemical protective boot covers |
| Hard Hat | ANSI approved |
| Reflective Safety Vests | ANSI Type 2 or Type 3 high-visibility |
| Modifications: | * Acid suits during liquid transfer and sludge handling.<br>** Cut resistant gloves will be used when handling metal and other sharp objects. |

Mod Level D Protection Shall Be Used When:

- The atmosphere is demonstrated to be within OSHA permissible limits
- Work functions preclude splashes, immersion or the potential for unexpected inhalation of, or contact with, hazardous concentrations of harmful chemicals.

Mod Level D Protection Equipment at a Minimum Shall Consist of:

| | |
|---|---|
| Chemical Resistant/Protective Coveralls | Breathable SMS or equivalent |
| Safety Shoes/Boots | Steel toed/shank |
| Boot Covers (booties) | Latex |
| Work Gloves | Cotton or Leather** |
| Hard Hat | ANSI approved |
| Face Shield (when needed) | As necessary |
| Reflective Safety Vests | ANSI Type 2 or Type 3 high-visibility |
| Safety Glasses | ANSI Z-87 approved |
| Modifications: | ** Cut resistant gloves will be used when handling metal and other sharp objects. |

6.5 Level D Protection Shall Be Used When:

- The atmosphere is demonstrated to be below OSHA permissible exposure limits

- Work functions preclude splashes, immersion or the potential for unexpected inhalation of, or contact with, hazardous concentrations of harmful chemicals.

Level D Protection Equipment at a Minimum Shall Consist of:

| | |
|---|---|
| Standard Work Clothing | Long pants/sleeved shirt |
| Safety Shoes/Boots | Safety Toed/shank |
| Boot Covers (booties) | As Needed |
| Work Gloves | Leather or cut resistant |
| Hard Hat | ANSI approved |
| Face Shield | As Needed |
| Safety Glasses | ANSI approved |
| Reflective Safety Vest | ANSI Type 2 high-visibility |
| Modifications: | ** Cut resistant gloves will be used when handling metal and other sharp objects. |

6.6 Decisions to Upgrade/Downgrade PPE

All decisions to downgrade from Level B to C or D must be accompanied by air monitoring results. The Regional Safety Managers must be advised of on-site decisions to downgrade. All decisions must be documented with an Addendum to the Plan.

The following conditions will necessitate reevaluation of PPE use.

- commencement of a new work not previously identified
- change of job tasks during a work phase
- change of season/weather
- contaminants other than those identified in Safety Plan
- change in ambient levels of contaminants
- change in work which affects degree of chemical contact

6.7 Project Personal Equipment Requirements

| **Project Personal Protective Equipment Requirements:** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Activity** | **Respiratory Protection** | **Body Protection** | **Head Protection** | **Hand Protection** | **Eye/Face Protection** | **Foot Protection** | **Hearing Protection** |
| Site Mobilization<br><br>(Level D) | None | Standard Work Clothes | ANSI-approved hardhat | Leather or cut resistant work gloves | ANSI-approved safety glasses | ANSI-approved safety boots | Plugs or muffs when working in or around heavy equipment |
| Site Setup / Debris Removal<br><br>(Level D Modified) | None | Poly coated Tyvek or equivalent coverall | ANSI-approved hardhat | Nitrile inner/outer gloves | ANSI-approved safety glasses | ANSI-approved safety boots | Plugs or muffs when working in or around heavy equipment |
| Waste Sampling<br><br>(Level B) | Full-face Pressure-Demand Supplied Air Respirator | Poly coated Tyvek or equivalent coverall | ANSI-approved hardhat | Nitrile inner/outer gloves | Full-face Respirator | Chemical resistant boots | Plugs or muffs when working in or around heavy equipment |
| Waste Handling (bulking, overpack, consolidation) (Level C) | APR w/ ov/ag/P100 | Poly coated Tyvek or equivalent coverall | ANSI-approved hardhat | Nitrile inner/outer gloves | Full-face Respirator | Chemical resistant boots | Plugs or muffs when working in or around heavy equipment |

| Project Personal Protective Equipment Requirements: | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Activity** | **Respiratory Protection** | **Body Protection** | **Head Protection** | **Hand Protection** | **Eye/Face Protection** | **Foot Protection** | **Hearing Protection** |
| Demobilization<br><br>(Level D) | None | Standard Work Clothes | ANSI-approved hardhat | Leather or cut resistant work gloves | ANSI-approved safety glasses | ANSI-approved safety boots | Plugs or muffs when working in or around heavy equipment |

**Personal Protective Equipment Inspection and Care:**

Inspection and care of PPE are covered in the ER Corporate SOP HS-24.

6.8 Respiratory Protection Program

ER shall implement the ER SOP HS-26 Respiratory Protection Program for its employees and subcontractors and train them on its contents. The program will be administered by the SHSO. START (Weston) personnel will follow all requirements of Section 6 of the current Weston ECH&S Program Manual (Respiratory Protection

Respiratory protective equipment shall be NIOSH-approved and use shall conform to OSHA 29 CFR Part 1910.134 Requirements. ER, START, and subcontractors shall maintain a written respirator program detailing selection, use, cleaning, maintenance and storage of respiratory protective equipment.

## 7.0 Medical Monitoring Requirements

7.1 Pre-Employment Medical Examination

a. Pre-employment medical examinations are required for persons working at hazardous waste sites.
b. All examinations must be completed and documented prior to assignment to this site.
c. All examinations will be conducted following parameters established by WorkCare™.

7.2 Site Specific Medical Examination

a. N/A

7.3 Annual Medical Examination

The medical examination must have been within a 6-month period prior to on-site activity and repeated annually. START personnel will follow WESTON corporate EHS program requirements

7.4 Suspected Exposure Medical Examination

a. Following any suspected uncontrolled exposure to site contaminants, personnel should be scheduled for a special medical examination.
b. The medical examination will be specific for the contaminants and the associated target organs or physiological system.
c. Questions regarding the type of medical examination can be directed to ER's Vice President, Health and Safety. Information concerning START (WESTON's) medical examination requirements is available from WESTON's Division Safety Manager (Medical Monitoring contact).

7.5 Contractor Medical Examination Requirements

All subcontractors entering the contamination reduction or exclusion zone will have adequate medical surveillance satisfying 29 CFR 1910.120.10 (f).

## 8.0 HEALTH AND HAZARD MONITORING

According to 29 CFR 1910.120 (h) Air Monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection needed on-site.

### 8.1 Routine Air Monitoring Requirements

- Upon initial entry to rule out IDLH conditions;
- When the possibility of an IDLH condition or flammable atmosphere has developed;
- When work begins on a different portion of the site;
- Contaminants other than those previously identified are being handled;
- A different type of operation is initiated;
- Employees are handling leaking drums or containers or working in areas with obvious liquid contamination; and,
- During confined space work.

Air monitoring will consist at a minimum of the criteria listed below. All air monitoring data will be documented and available in the command post site files for review by all interested persons. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications. Calibration and maintenance performed will be entered in the site log and/or instrument log book.

### 8.2 Site Specific Air Monitoring Requirements

| **Health Hazard Monitoring:** | | | | | |
|---|---|---|---|---|---|
| **Real Time (Air, noise, heat, radiation, light)** | | | | | |
| **Activity** | **Target Analyte** | **Instrument** | **Frequency** | **Action Levels** | **Actions/Upgrade and Rationale** |
| 1. Initial Entry<br><br>2. Waste Sampling<br><br>3. Lab Pack Ops<br><br>4. Bulking of wastes | Flammable Atmosphere | Combustible Gas Indicator (CGI)<br><br>(MultiRAE Plus or equivalent) | Initial and periodic<br><br>Continuous during CSE | > 10% LEL Evacuate area/space | Evacuate area Ventilate |
| | Organic Vapors | Photo –ionization Detector (PID)<br><br>(MultiRAE Plus or equivalent) | Initial transfer and periodic<br><br>Continuous during CSE | Background – 25 ppm - Level D<br><br>25 ppm – 500 ppm - Level C<br><br>>500 ppm Level B | Air-purifying respirator<br><br>Supplied-air respiratory protection<br><br>Evacuate area |
| | Oxygen | $O_2$ Meter<br><br>(MultiRAE Plus or equivalent) | Initial<br><br>Continuous during CSE | <19.5% and >23.5% $O^2$ | Evacuate area/space |

| Health Hazard Monitoring: | | | | | |
|---|---|---|---|---|---|
| Real Time (Air, noise, heat, radiation, light) | | | | | |
| **Activity** | **Target Analyte** | **Instrument** | **Frequency** | **Action Levels** | **Actions/Upgrade and Rationale** |
| Site wide | **Temperature Extremes Heat | Thermometer In conjunction with web site www.intellicast.com for heat index, rel hum% measurements if WBGT is not available | Observe workers for signs of heat stress and implement physiological monitoring if warranted.<br>**Every 2 hours**<br>**Every 60 minutes**<br>**Every 30 minutes** | 80-90 °F HEAT INDEX<br>**90 -105 °F HEAT INDEX**<br>**105 – 130 °F HEAT INDEX**<br>**>130 °F HEAT INDEX** | Implement suggested work rest schedule per ACGIH (see below) *** |

* The reading must be sustained for at least one (1) minute in the breathing zone.

**When permeable work clothes are worn (street clothes or clothing ensembles over street clothes), regularly observe workers for signs and symptoms of heat stress and implement physiological monitoring as indicated below. This should start when the heat index reaches 80°F (see table above), or sooner if workers exhibit symptoms of heat stress. These heat index values were devised for shady, light wind conditions. Exposure to full sunshine can increase the values by up to 15°F. In addition, strong winds, particularly with very hot, dry air, can be extremely hazardous.

When wearing impermeable clothing (i.e. – clothing doesn't allow for air or water vapor movement such as Tyvek), physiological monitoring as described below shall be conducted by all ER employees and their subs when the ambient temperature reaches 80°F or at a lower temperature when workers begin to exhibit signs and symptoms of heat stress.

***

| Ambient Temperature (Adjusted) | Work Duration for Permeable PPE (level D) | Work Duration for Impermeable PPE (levels C, B, modified D) |
|---|---|---|
| 65°F - 77.5°F | 120 minutes | 120 minutes |
| 77.5°F – 82.5°F | 120 minutes | 90 minutes |
| 82.5°F – 87.5°F | 90 minutes | 60 minutes |
| 87.5°F – 90°F | 60 minutes | 30 minutes |
| 90°F or above | 45 minutes | 15 minutes |

8.3 Integrated Personal Exposure Monitoring:

Integrated personal exposure monitoring is not anticipated due to site contaminants and SOW.

## 9.0 SITE CONTROL AND GENERAL FIELD SAFETY RULES

### 9.1 Work Zones

The primary purpose for site controls is to establish the hazardous area perimeter, to reduce migration of contaminants into clean areas and to prevent access or exposure to hazardous materials by unauthorized persons.

At the end of each workday, the site should be secured or guarded, to prevent unauthorized entry. All areas of the building with access to the public will be closed by barricades.

Site work zones will include:

Clean Zone/Support Zone (SZ)

This uncontaminated support zone or clean zone will be the area outside the exclusion and decontamination zones and within the geographic perimeters of the site. This area is used for staging of materials, parking of vehicles, office and laboratory facilities, sanitation facilities, and receipt of deliveries. Personnel entering this zone may include delivery personnel, visitors, security guards, etc., who will not necessarily be permitted in the exclusion zone. All personnel arriving in the support zone will upon arrival, report to the command post and sign the site entry/exit log. There will be one controlled entry/exit point from the clean zone to the decontamination zone.

1) Location of Clean Zone: TBD

Contamination Reduction Zone (CRZ)

The contamination reduction zone will provide a location for removal of contaminated personal protective equipment and final decontamination of personnel and equipment. All personnel and equipment should exit via the decontamination area. A separate CRZ area will be established for heavy equipment.

1) The CRZ is a buffer zone between contaminated and clean areas and will be identified by yellow banner guard or barricade fencing.
2) Decontamination line is located: Where appropriate depending on location of work within facility

Exclusion Zone/Hot Zone (EZ) :

The exclusion zone will be the "hot-zone" or contaminated area inside the site building. Entry to and exit from this zone will be made through a designated point and all personnel will be required to sign the hot zone entry/exit log located at the decon area. Appropriate warning signs to identify the EZ should be posted (i.e. "DANGER - AUTHORIZED PERSONNEL ONLY," "PROTECTIVE EQUIPMENT REQUIRED BEYOND THIS POINT," etc.) Exit from the EZ must be accompanied by personnel and equipment decontamination as described in Section 10.0.

1) Will be identified by red banner guard or signs.
2) General Safety Rules for EZ
    a. wear the appropriate level of PPE defined in plan
    b. do not remove any PPE
    c. no smoking, eating or drinking
    d. no horseplay
    e. no matches or lighters
    f. implement the communication and line of sight system

### 9.2 General Field Safety Rules

- Horseplay is not permitted at any time.
- All visitors must be sent to the command post.
- It is ER policy to practice administrative hazard control for all site areas by restricting entrance to exclusion zones to essential personnel and by using operational SOPs.
- Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces. Walk around (not through) puddles and discolored surfaces. Do not kneel on the ground or set equipment on the ground. Stay away from any waste drums unless necessary. Protect equipment from contamination by bagging.
- Eating, drinking, or smoking is permitted only in designated areas in the support zone.
- Hands and face must be thoroughly washed upon leaving the decontamination area.
- Cell phone use is not allowed in EZ, unless authorized by Project HS Manager.
- Cell phone use while operating equipment is not allowed.
- Cell phone use while operating motor vehicles must comply with applicable DOT regulations
- Beards or other facial hair that interferes with respirator fit will preclude wearing a respirator.
- All equipment must be decontaminated or discarded upon exit from the exclusion zone.
- All personnel exiting the exclusion zone must go through the decontamination procedures described in Section 10.0.
- Safety Equipment described in Section 6.0 will be required for all field personnel.
- Personnel will only travel in vehicles where individual seats for each occupant are provided.
- Seat belts will be worn as required.
- Fire extinguishers will be available on site and in all areas with increased fire danger such as the refueling area.
- A minimum of two personnel will always be on site whenever heavy equipment is operated.
- Only necessary personnel need to be on or around heavy equipment.
- Employees will not interfere with or tamper in any way with air monitoring equipment.
- Backhoes or other equipment with booms shall not be operated within 10 feet of any electrical conductor

**Minimum Clearance from Energized Overhead Electric Lines**

| NOMINAL SYSTEM VOLTAGE | MINIMUM REQUIRED CLEARANCE |
|---|---|
| 0-50 kV | 10 feet |
| 51-100 kV | 12 feet |
| 101-200 kV | 15 feet |
| 201-300 kV | 20 feet |
| 301-500 kV | 25 feet |
| 501-750 kV | 35 feet |
| 751-1000 kV | 45 feet |

- Visitor log will be maintained at the command post or with the security guard. All personnel coming on site will sign in and out on a daily basis.
- Security will be maintained at the site by closing all gates during normal work hours. Site will be locked up in the evening.
- If unauthorized members of the public are found on site, contact RM immediately and do not leave the individual unattended.
- Visitors are not allowed in the work areas without authorization. Visitors must sign in at the Command Post and receive authorization to enter the site.
- Buddy System

- The buddy system is mandatory at anytime that personnel are working in the exclusion zone, remote areas, on tanks, or when conditions present a risk to personnel.
- A buddy system requires at least two trained/experienced people who work as a team and maintain at a minimum audible and/or visual contact while operating in the exclusion zone.

- Communication Procedures
  - Radios will be used for onsite communications and Channel 4 will be the designated channel.
  - The crews should remain in constant radio or visual contact while on site.
  - The site evacuation signal will be 3 blasts on the air or vehicle horn.

## 10.0 DECONTAMINATION PROCEDURES

In general, everything that enters the EZ at this site must either be decontaminated or properly discarded upon exit from the EZ. All personnel, including any state and local officials must enter and exit the EZ through the CRZ. Prior to demobilization, contaminated equipment will be decontaminated and inspected before it is moved into the SZ. Any material that is generated by decontamination procedures will be stored in a designated area in the EZ until disposal arrangements are made.

NOTE: The type of decontamination solution to be used is dependent on the type of chemical hazards. The decontamination solution for this site is water. Decontamination solution will be changed daily (at a minimum) and collected and stored on-site until disposal arrangements are finalized.

### 10.1 Procedures for Equipment Decontamination

Following decontamination and prior to exit from the EZ, the RM shall be responsible for ensuring that the item has been sufficiently decontaminated. This inspection shall be included in the site log.

Equipment decontamination will consist of the following steps: Clean with soap and water solution.

### 10.2 Procedure for Personnel Decontamination

This decontamination procedure applies to personnel at this site wearing Level B and C protection. These are the minimum acceptable requirements:

Station 1: Equipment Drop
Deposit equipment used on-site (tools, sampling devices and monitoring instruments, radios, etc.) on plastic drop cloths. These items must be decontaminated or discarded as waste prior to removal from the EZ.

Station 2: Outer Boot and Outer Glove Wash and Rinse
Scrub outer boots, outer gloves and/or splash suit with decontamination solution or detergent water. Rinse off using water.

Station 3: Outer Boot and Glove Removal
Remove outer boots and gloves. If outer boots are disposable, deposit in container with plastic liner. If no disposable, store in a clean dry place.

Station 4: Outer Garment Removal
If applicable, remove SCBA and remain on air as long as possible. Remove Chemical Resistant Outer Garments and deposit in container lined with plastic. Decontaminate or dispose of splash suits as necessary.

Station 5: Respiratory Protection Removal
Remove hard-hat, face-piece, and if applicable, deposit SCBA on a clean surface. APR cartridges will be discarded as appropriate. Wash and rinse respirator at least daily. Wipe off and store respiratory gear in a clean, dry location.

Station 6: Inner Glove Removal

Remove inner gloves. Deposit in container for disposal.

Station 7: Field Wash
Thoroughly wash hands and face with soap and water. Shower as soon as possible. Emergency shower only onsite.

Eating, drinking, chewing gum/tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and/or ingestion of materials is prohibited in any areas where the possibility of contamination exists and is permitted only in the designated break area.

Personnel will not wear or bring contaminated clothing into the break areas.

10.4 Disposition of Decontamination Wastes

1. All equipment and solvents used for decontamination shall be decontaminated or disposed of with the established waste streams.

p

2. Commercial laundries or cleaning establishments that decontaminate or are used to launder contaminated clothing shall be informed of the presence and potentially harmful effects of the contaminants.

## 11.0 HAZARD COMMUNICATION

Each contractor will be responsible for maintaining a copy of their Hazardous Communication Program and MSDS' on site. The following items are specific to this job site:

11.1 Material Safety Data Sheets
- [1] Material Safety Data Sheets will be maintained at the Command Post in the Health and Safety Binder or readily available electronically.
- [2] MSDS' will be available to all employees for review during the work shift.
- [3] See Attachment C and/or the ER Health and Safety Binder or on computer.

11.2 Container Labeling
- [1] All containers received on site will be inspected by the contractor using the material to ensure the following:
  - a. all containers clearly labeled
  - b. appropriate hazard warning
  - c. name and address of the manufacturer

11.3 The following chemicals may be brought to the site:
- [1] Gasoline
- [2] Diesel Fuel
- [3] ZEP industrial purple cleaner
- [4] Isobutylene calibration gas
- [5] Methane calibration gas
- [6] Mixed calibration gas for MultiRAE (CO, H2S, LEL, O2)
- [7] Hazcat Kit Reagents

11.4 Employee Training and Information
- [1] Prior to starting work, each employee will attend a health and safety orientation and will receive information and training on the following:
  - a. an overview of the requirements contained in the Hazardous Communication Standard
  - b. hazardous chemicals present at the site

c. the location and availability of the written Haz Com Program
d. physical and health effects of the hazardous chemicals
e. methods of preventing or eliminating exposure
f. emergency procedures to follow if exposed
g. how to read labels and review MSDS' to obtain information
h. location of MSDS file and location of hazardous chemical list

See ER Health and Safety Binder for Hazard Communication Program and applicable MSDS'.

## 12.0 EMERGENCIES/INCIDENTS/INJURIES

It is essential that site personnel be prepared in the event of an emergency. Emergencies can take many forms; illnesses or injuries, chemical exposure, fires, explosions, spills, leaks, releases of harmful contaminants, or sudden changes in the weather. The following sections outline the general procedures for emergencies. Emergency information should be posted as appropriate.

### 12.1 Emergency Contacts

| Emergency Call List and Project Organization | | |
|---|---|---|
| **Service** | **Name/Organization** | **Emergency Phone** |
| Fire/Police/Emergency Medical | Ashtabula County, Ohio | 911 |
| Police | Andover Village Police | 440-293-4555 |
| Sheriff | Ashtabula County, Ohio | 911 |
| *Hospital – | Ashtabula County Medical Center<br>2420 Lake Ave<br>Ashtabula, OH 44004 | (440) 997-2262 |
| *Occupational Medicine Clinic | Water Street Urgent Care<br>1009 Water St<br>Meadville, PA 16335 | |
| WorkCare (Incident Intervention) | | (888) 449-7787 |
| Client Representative | USEPA OSC/ Elizabeth Nightingale | 734-692-7665 |
| ER Response Manager | Ed Kiernicki | 586-246-2321 |
| ER SHSO | Ed Kiernicki | 586-246-2321 |
| ER Project HS Manager | Nick Michailides | 219-286-5359 |
| START (Weston) Project Mgr. | Ryan Green | 330-985-0037 |
| START (Weston) Div. Safety Mgr | Ted Deecke | 847-337-4147 |
| START (Weston) Safety Officer | Dave Robinson | 937-572-3630 |

*Directions from Site to Hospital and Clinic: (See Map in Attachment B)

NOTE: Maps and directions to the hospital and clinic will be posted in the office and kept in site vehicles.

Distance from site to hospital is approximately11.5 miles. Driving time is approximately 18 minutes.
Distance from site to clinic is approximately 11 miles. Driving time is approximately 16 minutes.

The following individuals have been trained in CPR and First Aid~~.~~ [Ed Kiernicki and John Moore]

12.2 Additional Emergency Numbers

| | |
|---|---|
| Poison Control Center | 800-222-1222 |
| National Response Center | 800-424-8802 (24 hr) |
| Center for Disease Control | 404-488-4100 (24 hr) |
| AT&F (Explosives Information) | 800-424-9555 |
| Chemtrec | 800-424-9300 |
| USEPA Region 5 ER Duty Officer | 215-814-3255 ( 24 hr) |

ER Corporate Contacts

| | |
|---|---|
| ER Corporate 24 Hour Hotline | 888-814-7477 |
| ER Headquarters (St. Louis) | 636-227-7477 |

12.3 Emergency Equipment Available On-Site

| Communications Equipment | Location |
|---|---|
| Private Telephones | N/A |
| Mobile Telephones | RM – Ed Kiernicki 586-246-2321 |
| Two-Way Radios | Channel 1 will be used on site for site contact |
| Emergency Alarms/Horns | Vehicle Horns / Air Horn |
| Other: | Office phone TBD |

| Medical Equipment | Location |
|---|---|
| First Aid Kits | Site Vehicles / Command Post Office |
| Stretcher/Backboard | N/A |
| Eye Wash Station:<br>*(within 100 feet of hazard zone)* | CRZ/Command Post Office |
| Safety Shower | CRZ |

| Fire Fighting Equipment | Location |
|---|---|
| Fire Extinguishers | Site Vehicles / Command Post Office/CRZ |
| Other | Flammables storage area |

| Spill or Leak Equipment | Location |
|---|---|
| Absorbent Boom/Pads: | Support Zone/Trailer |
| Dry Absorbent: | Support Zone/Trailer |

12.4 Incident Reporting/Investigations

- All incidents, including personal injury and property damage, must be reported to the RM, Supervisor, or SHSO immediately.
- The RM will contact ER Vice President, Health and Safety by telephone immediately. The RM, SHSO, and effected employees will conduct an immediate investigation of the incident and document all results on the Incident and Investigation Report form.
- The Response Manager will assign a supervisory individual to accompany all injured personnel to the clinic and follow guidelines outlined in the ER Return to Work Program.
- Copies of all Incident and Investigation Reports will be sent to the ER Vice President, Health and Safety.
- START will notify the START PM and HSO, and file an incident report through WESTON's NOI Track.

## 13.0 EMERGENCY RESPONSE CONTINGENCY PLAN

### 13.1 Personnel Responsibilities

As the administrator of the project, the RM has primary responsibility for responding to and correcting emergency situations. The RM will:

- Take appropriate measures to protect personnel including: withdrawal from the exclusion zone, total evacuation and securing of the site or up-grading or down- grading the level of protective clothing and respiratory protection.
- Take appropriate measures to protect the public and the environment including isolating and securing the site, preventing run-off to surface waters and ending or controlling the emergency to the extent possible.
- Ensure that appropriate Federal, State and local agencies are informed, and emergency response plans are coordinated. In the event of fire or explosion, the local fire department should be summoned immediately. In the event of an air release of toxic materials, the local authorities should be informed in order to assess the need for evacuation. In the event of a spill, sanitary districts and drinking water systems may need to be alerted.
- Ensure that appropriate decon treatment or testing for exposed or injured personnel is obtained.
- Determine the cause of the incident and make recommendations to prevent the recurrence.
- Ensure that all required reports have been prepared and submitted.

### 13.2 Medical Emergencies:

Any person who becomes ill or injured in the exclusion zone must be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket.) First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must immediately be reported to Vice President of Health and Safety. Injuries or illnesses to any START personnel must be immediately reported to the START or Division Safety officer at Weston (listed above) for entry and tracking into the NOITrack system

#### Onsite First Aid Support

Onsite medical support during project execution will be available from two or more individuals who are trained in First Aid and Cardiopulmonary Resuscitation (CPR) and bloodborne pathogens.

Onsite first aid kits shall be Type III, 16 unit kits, including one pocket mouthpiece or CPR barrier. Kits shall be checked prior to use, and at least weekly when work is in progress to ensure that contents are replaced as used.

#### Medical Transport of Employees and Case Management

For non-emergency injuries, a local clinic will be identified with the assistance of the Corporate Medical Consultant; WorkCare Incident Intervention (II) will be contacted immediately to establish a medical treatment plan prior to transporting the injured worker to the clinic. The WorkCare II consultant will attempt to contact the clinic ahead of the arrival of the patient to establish oversight of case management. Under no circumstances will an injured employee drive unescorted to a hospital, clinic, etc. An employee with minor injury may be transported by car after first aid treatment is given. The HSO or other project management personnel will transport the injured person to the facility. The employee who transports the injured person shall be trained in first aid and CPR whenever possible. When the injury is severe, or when in doubt concerning the severity of injury, the employee will be transported by ambulance.

Injured employees that require medical treatment or are taken to a doctor, hospital, clinic, etc., will not be allowed to resume work without a written return to work statement from the treating physician. This statement shall supply a medical diagnosis of the problem, the date of return to work, and work limitations. Should a return to work

statement such as "light duty" be given, the treating physician will be contacted to determine the specific limitation. ER will make an assessment of work the employee normally performs whether or not the limitation interferes with the employee's normal work.

Whenever there are questions on the appropriateness of the diagnosis or prescribed course of treatment, WorkCare will be contacted to arrange for a second opinion. Copies of all Incident and Investigation Reports will be sent to the ER Corporate Health and Safety Manager.

13.3 Fire or Explosion:

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival the RM or designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials on- site.

If it is safe to do so, site personnel may:

- Use firefighting equipment available on site.
- Remove or isolate flammable or other hazardous materials which may contribute to the fire.

13.4 Spills, Leaks or Releases:

In the event of a spill or a leak, site personnel will:

- Locate the source of the spillage and stop the flow if it can be done safely.
- Begin containment and recovery of the spilled materials.

13.5 Evacuation Routes and Resources:

- Evacuation routes have been established by work area locations for this site. All buildings and outside work areas have been provided with two designated exit points. Evacuation should be conducted immediately, without regard for equipment under conditions of extreme emergency. See site map for evacuation routes.
- Evacuation notification will be three blasts on an air horn, vehicle horn, or by verbal communication via radio.
- Keep upwind of smoke, vapors or spill location.
- Exit through the decontamination corridor if possible.
- If evacuation is not via the decontamination corridor, site personnel should remove contaminated clothing once they are in a location of safety and leave it near the exclusion zone or in a safe place.
- The RM will conduct a head count to insure all personnel have been evacuated safely.
- In the event that emergency site evacuation is necessary, all personnel are to:
  1. Escape the emergency situation;
  2. Decontaminate to the maximum extent practical; and,
  3. Meet at the command post.

# ATTACHMENT A

## SITE SAFETY PLAN AMENDMENTS

| SITE SAFETY PLAN AMENDMENT | |
|---|---|
| Amendment No.: | |
| Site Name: | |
| Date of Issue: | |
| Type of Amendment: | |
| Reason for Amendment: | |
| Alternate Safeguard Procedures: | |
| Required Changes in PPE: | |

USEPA On-Scene Coordinator _____ (Date)

ER Response Manager _____ (Date)

ER Project Health and Safety Manager _____ (Date)

## ATTACHMENT B

## MAPS

(Site Map)
(Route to Hospital)
(Route to Clinic)

# ATTACHMENT C

## CHEMICAL HAZARD INFORMATION

# ATTACHMENT Z

## SITE SPECIFIC TRAINING RECORD

## SITE-SPECIFIC TRAINING RECORD

This is to advise that _____ conducted a Site-Specific Training
(Instructor's name)

course for _____ at the
(Company Name)

_____ project on _____.
(TO #, Project Name) (Date)

The total duration of the instructions was _____ hours.

Instruction covered the topics checked off below:

- Site Location, Description and History ☐
- Potential site hazards (chemical, physical, and biological) ☐
- Chemical, physical, and toxicological properties of site contaminants ☐
- Safe work practices ☐
- Training requirements ☐
- Medical Surveillance ☐
- Control Zones ☐
- Monitoring ☐
- Selection, use, and limitation, of personal protective equipment ☐
- Personnel and equipment decontamination ☐
- Emergency response procedures ☐
- Hazard communication ☐
- Blood borne pathogen briefing ☐

The following participant attended the training course for the full duration indicated above.

_____ _____
Name (Print) Signature